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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,401	11/24/2000	Krister Hansson	TPP 31352	2813

7590 12/31/2001
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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 12/31/2001 5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,401

Applicant(s)

Hansson et al

Examiner

Parker

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 11/24/00
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-18 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-18 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show #2, upper decorative layer, as described on page 10 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

Claim Objections

3. Claims 1-18 are objected to because of the following informalities: (1) use of "comprising" instead of "characterized in that" is suggested (2) claim 5, line 2, "consists" should be singular (3) claim 7, lines 2 & 3, "is" should be "are" because particles is plural . Appropriate correction is required.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-8,11-13,15,18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 3 is vague and indefinite because the term "several" fails to clearly convey the intended number of steps.

- Claims 4-7 are vague and indefinite because use of the relative term "hard" fails to convey the required hardness of the particles.

- Claim 5, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

- Claim 6: "main part" lacks antecedent basis, and it is unclear what it means; line 3, it is unclear to what "a smaller amount" refers.

- Claim 7 is vague and indefinite because on line 3, it is unclear how close to the upper surface qualifies as being "close".

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- Claim 8 is vague and indefinite because the phrase "a content of silicone polymer" fails to convey the intended amount required, e.g. 1 wt %, 90 wt %, 0.0001 molar %, etc.
- Claim 11 is vague and indefinite because the relative term "semi-translucent" fails to clearly convey the amount of translucency required.
- Claim 12 is vague and indefinite because the meaning of "structure enhancing shadow effect" is unclear.
- Claim 13 is vague and indefinite because the meaning of "structure enhancing effect" is unclear.
- Claim 15 is vague and indefinite because it is unclear what is meant by lines 2-5, in that (1) it is unclear how the decor layer originates from a digitally stored original, it is unclear how the original is "processed" per line 3, and what is meant by the phrase "in every essential aspect" particularly since it is unstated what is or is not an "essential aspect". For examination, it will be assumed to mean that computer stored patterns are used to apply the decorative layer; the claim is also vague and indefinite because it is unclear how the "decor layer" relates to the overall "decorative upper surface".
- Claim 18 is vague and indefinite because the relative term "mainly" fails to convey the intended polymer content; the phrase "such as" renders the claim

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indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3,8-14,16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kazuhiro JP 06-008392.

See abstract; machine translation pages 2 and 4. "Lacquer" and "ink" are taken to be synonymous since both are intended to be decorative printable coating materials comprising a resin and solvent which dries by evaporation of solvent. Furthermore, Applicants' specification does not impart any specific compositional differences or special meaning to distinguish between lacquer of the instant application and ink of the prior art.

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhiro.

Kazuhiro is cited for the same reasons discussed above, which are incorporated herein. [0019] states that metal, plastic, paper, etc substrates are suitable base layer materials. In view of the lack of limitation of substrates the use of wood board substrates of claim 17 would have been obvious choices,

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particularly since other cellulosic materials are recognized (e.g. paper), and further the selection of a specific polymer such as polyurethane of claim 18 would have been obvious because of the expectation of forming a plural layer decorative sheet.

11. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhiro in view of Gaeta et al US 5624471.

Kazuhiro is cited for the same reasons discussed above, which are incorporated herein. Application of abrasive particles is not cite, although [0048] recognizes the necessity of having a "surface hardness" and [0055] notes the requirement of abrasion resistance for building material applications.

Gaeta et al teaches on col. 2, 14-20 and col. 3, 37-41 that UV polymerizable binder resins including epoxy-acrylates, epoxy-novalacs, etc are applied to cellulosic substrates (paper) and used to bind abrasive grit particles including alumina, silicon carbide, diamond, etc and mixtures thereof. The examples cite particle sizes of 180 grit (approx. 80 microns) which is within the range of claim 4. While the diamond particle size of claim 7 is not cited, the particle sizes of Gaeta et al are not limited, and the use of particle sizes based upon application and particle size of commercially available diamond materials would have been obvious.

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Since Kazuhiro recognizes the importance of abrasion resistance/ hardness of the UV curable resin-coated decorative articles, and Gaeta et al teaches that such UV curable resins form a suitable bond for hard particles, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of Kazuhiro by incorporating abrasion resistant particles in a UV curable layer as taught by Gaeta et al to provide the desired hardness and abrasion resistance.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhiro in view of Pieters GB2 324 982A.

Kazuhiro is cited for the same reasons discussed above, which are incorporated herein. Computer-controlled application of designs to form a decorative surface is not cited.

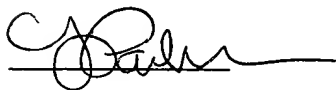
Pieters teaches to apply decorative patterns of UV curable inks onto a wood-based substrate by photographically or digitally imaging a wood-grain pattern from an original veneer, wood, or marquetry design; downloading the pattern into a computer; and then using computer-aided screen printing to apply the UV curable ink onto the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

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process of Kazuhiro by incorporating the computer-aided printing of Pieters to apply the UV curable design coatings because of the expectation of producing the designs required to make the decorative sheet.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5830343 and 4233343 both teach similar methods which utilize a repellant design phase followed by application of a second coating phase which is repelled by the design phase.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred J. Parker whose telephone number is (703) 308-3474.



FRED J. PARKER
PRIMARY EXAMINER

Fred J. Parker

October 15, 2001

9-718401